

Claims:

1. A 2-D image display device comprising:
a coherent light source;
2-D beam scan means for scanning light from the coherent light source two-dimensionally;
light intensity modulation means for modulating the light from the coherent light source in intensity; and
beam oscillation means for minutely oscillating the light from the coherent light source.
2. The 2-D image display device according to Claim 1, further comprising:
beam collection means for collecting the light from the coherent light source onto a screen.
3. The 2-D image display device according to Claim 1 or 2, wherein:
the beam oscillation means oscillates the light from the coherent light source in a direction perpendicular to a scan line by the 2-D beam scan means.
4. The 2-D image display device according to any of Claims 1 through 3, wherein:
the beam oscillation means oscillates the light on the screen in amplitude equal to or larger than a spot diameter

of the light collected on the screen by the beam collection means, and equal to or smaller than an interval of scan lines by the 2-D beam scan means.

5. The 2-D image display device according to any of Claims 1 through 4, wherein:

while the 2-D beam scan means scans the light from the coherent light source comparable to one digital image data along a scan line, the beam oscillation means oscillates the light at least from largest amplitude to following largest amplitude.

6. The 2-D image display device according to any of Claims 1 through 5, wherein:

while the 2-D beam scan means scans the light from the coherent light source comparable to one digital image data along a scan line, the beam oscillation means oscillates the light in a non-integral multiple of one cycle.

7. The 2-D image display device according to any of Claims 1 through 5, wherein:

in a case where the light from the coherent light source is oscillated in N cycles by the beam oscillation means while the 2-D beam scan means scans the light from the coherent light source comparable to one digital image data along a scan line,

a spot diameter of the light projected onto the screen is of a size equal to or larger than $1/(4N)$ of a distance over which the light is scanned by the 2-D beam scan means within the scan time.

8. The 2-D image display device according to any of Claims 1 through 7, wherein:

the beam oscillation means uses an electro-optic effect.

9. The 2-D image display device according to any of Claims 1 through 8, wherein:

the coherent light source is formed of a blue coherent light source, a green coherent light source, and a red coherent light source.

10. The 2-D image display device according to Claim 9, wherein:

the blue coherent light source and the red coherent light source are semiconductor laser light sources;

the green coherent light source is formed of an infrared coherent light source and light wavelength conversion means for converting a wavelength of light from the infrared coherent light source to half the wavelength;

the display device further comprises high frequency current superimposing means for superimposing a high frequency

current on driving currents for the red coherent light source and the blue coherent light source; and

the beam oscillation means is integrated into a same substrate for the light wavelength conversion means.

11. The 2-D image display device according to Claim 9, wherein:

the red coherent light source is a semiconductor laser light source;

the green coherent light source is formed of a first infrared coherent light source and light wavelength conversion means for green for converting a wavelength of light from the first infrared coherent light source to half the wavelength;

the blue coherent light source is formed of a second infrared coherent light source and light wavelength conversion means for blue for converting a wavelength of light from the second infrared coherent light source to half the wavelength;

the display device further comprises high frequency current superimposing means for superimposing a high frequency current on a driving current for the red coherent light source; and

the beam oscillation means is integrated into a same substrate for the light wavelength conversion means for green and into a same substrate for the light wavelength conversion means for blue.

12. An illumination light source comprising:

a coherent light source;

beam scan means for scanning light from the coherent light source;

light intensity modulation means for modulating the light from the coherent light source in intensity; and

beam oscillation means for minutely oscillating the light from the coherent light source.